Customer No. 20,995

Docket No.: ASMEX.446A

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INFORMATION DISCLOSURE STATEMENT

Arena et al.

App. No 10/800,417

March 11, 2004 Filed

SiGe RECTIFICATION PROCESS For

Examiner Unknown

Art Unit 2812 CERTIFICATE OF MAILING

I hereby certify that this correspondence and all marked attachments are being deposited with the United States Postal Service as first-class an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on

March 11, 2005

(Date)

Andrew N. Merickel, Reg. No. 53,317

Mail Stop Amendment Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

Enclosed for filing in the above-identified application is an Information Disclosure Statement by Applicant (PTO/SB/08 equivalent) listing 40 references to be considered by the Examiner. Also enclosed are 21 foreign patent references and/or non-patent literature as listed on the Information Disclosure Statement.

This Information Disclosure Statement is being filed before the receipt of a first Office Action on the merits, and presumably no fee is required. If a first Office Action on the merits was mailed before the mailing date of this Statement, the Commissioner is authorized to charge the fee set forth in 37 C.F.R. § 1.17(p) to Deposit Account No. 11-1410.

Respectfully submitted,

KNOBBE, MARTENS, OLSON & BEAR, LLP

Dated: March 11, 2065

Andrew N. Merickel

Registration No. 53,317

Attorney of Record

Customer No. 20,995

(415) 954-4114

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Please Direct All Correspondence to Customer Number 20995

TRANSMITTAL LETTER INFORMATION DISCLOSURE STATEMENT

Applicant

Arena et al.

App. No

10/800,417

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SiGe RECTIFICATION PROCESS

Examiner

Unknown

Art Unit

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(Date)

Andrew N. Merickel, Reg. No. 53,317

Mail Stop Amendment

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

Enclosed for filing in the above-identified application are:

- (X) An Information Disclosure Statement and PTO/SB/08 equivalent listing references for consideration:
 - (X) Listing 40 references.
 - (X) Enclosing 21 references.
- (X) The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment, to Account No. 11-1410.
- (X) Return prepaid postcard.

Andrew N. Merickel Registration No. 53,317 Attorney of Record

Customer No. 20,995

(415) 954-4114

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MAR 1 4 2005 Application No. 10/800,417 INFORMATION DISCLOSURE Filing Date March 11, 2004 First Named Inventor Chantal J. Arena STATEMENT BY APPLICANT Art Unit 2812 (Multiple sheets used when necessary) Examiner Unknown ASMEX.446A SHEET 1 OF 3 Attorney Docket No.

	U.S. PATENT DOCUMENTS						
Examiner Initials	Cite No.	Document Number Number - Kind Code (if known) Example: 1,234,567 B1	Publication Date MM-DD-YYYY	Name of Patentee or Applicant	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear		
	1	6,646,073	04/2003	Kondo			
	2	6,709,901	03/2004	Yamazaki, et al.			
	3	2002/0173130	11/2002	Pomerede, et al.			
	4	3,602,778	08/31/71	Ura, et al			
	5	3,720,877	03/13/73	Zarowin			
	6	3,729,645	04/24/73	Redington			
	7	3,737,739	06/05/73	Blakeslee, et al.			
	8	3,984,718	10/05/76	Fein, et al.			
	9	3,984,857	10/05/76	Mason			
<u></u>	10	3,985,590	10/12/76	Mason			
	11	4,461,820	07/24/84	Shirai, et al.			
	12	4,656,013	04/07/87	Hiai, et al.			
	13	4,699,892	10/13/87	Suzuki			
	14	4,786,574	11/22/88	Shirai, et al.			
	15	4,803,186	02/07/89	Chen, et al.			
	16	4,857,270	08/15/89	Maruya, et al.			
	17	4,868,014	09/19/89	Kanai, et al.			
	18	4,983,274	01/08/91	Chen, et al.			
	19	5,037,775	08/06/91	Reisman			
	20	5,112,439	05/12/92	Reisman, et al.			
	21	5,281,274	01/25/94	Yoder			
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	23	5,294,285	03/15/94	Kanai, et al.			
	24	5,316,958	05/31/94	Meyerson			
	25	5,366,554	11/22/94	Kanai, et al.			
	26	5,482,557	01/09/96	Kanai, et al.			
	27	5,576,247	11/19/96	Yano, et al.			
	28	5,646,073	07/08/97	Grider, et al.			
	29	5,667,586	09/16/97	Ek, et al.			

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Date Considered

^{*}Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

T¹ - Place a check mark in this area when an English language Translation is attached.

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Multiple sheets used when necessary)

SHEET 2 OF 3

Application No.	10/800,417
Filing Date	March 11, 2004
First Named Inventor	Chantal J. Arena
Art Unit	2812
Examiner	Unknown
Attorney Docket No.	ASMEX.446A
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	U.S. PATENT DOCUMENTS						
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	30	5,818,100	10/06/98	Grider, et al.			
	31	6,242,080 B1	06/05/01	Kondo			
	32	6,451,641 B1	09/17/02	Halliyal, et al.			
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	34	2003/0010978 A1	01/16/03	Burden			
740	35	2003/0111013 A1	06/19/03	Oosterlaken, et al.			
	36	2003/0157787	08/21/03	Murthy et al.			
	37	2003/0207127	11/06/03	Murthy et al.			
	38	2003/0235931	12/25/03	Wada et al.			
	39	2003/0230233	12/18/03	Fitzgerald et al.			

	FOREIGN PATENT DOCUMENTS						
Examiner Initials	Cite No.	Foreign Patent Document Country Code-Number-Kind Code Example: JP 1234567 A1	Publication Date MM-DD-YYYY	Name of Patentee or Applicant	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T ¹	
	40	JP 62017004	01/26/87	Japan			

	NON PATENT LITERATURE DOCUMENTS						
Examiner Initials	Cite No.	itom (book magazine journal serial symnosium catalog etc.) oate pagets), volume-issue					
	41	TAKAGI ET AL., "Device structure and electrical characteristics of strained-Si-on-insulator (strained-SOI) MOSFETs", Materials Science and Engineering B89 (2002), pp. 426-434					
	42	LIM ET AL., " <u>Dry thermal oxidation of a graded SiGe layer"</u> , Applied Physics Letters, Vol. 79, No. 22, November 26, 2001, pp. 3606-3608					
	43	SUGIYAMA ET AL., "Fabrication of SiGe on Insulator Structure using Ge Condensation Technique", Third International Conference on SiGe (C) Epitaxy and Heterostructures (ICSI3), Santa Fe, NM, March 9-12, 2003, pp. 153-153					
	44	MIZUNO ET AL., "Advanced SOI p-MOSFETs with Strained-Si Channel on SiGe-on-Insulator Substrate Fabricated by SIMOX Technology", IEEE Transactions on Electron Devices, Vol. 48, No. 8, August 2001, pp. 1612-1618					
	45	MIZUNO ET AL., "Electron and Hole Mobility Enhancement in Strained-Si MOSFET's on SiGe-on- Insulator Substrates Fabricated by SIMOX Technology", IEEE Electron Device Letters, Vol.21, No. 5, May 2000, pp. 230-232					
	46	AUZUNO ET AL "Nevel SOL a Channel MOSEETs With Higher Strain in Si Channel Using Double					

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Date Considered

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T¹ - Place a check mark in this area when an English language Translation is attached.

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MAR 1 & 2005	Application No.	10/800,417
INFORMATION DISCLOSURE	Filing Date	March 11, 2004
STATEMENT BY APPLICANT	First Named Inventor	Chantal J. Arena
STATEMENT DI AFFLICANT	Art Unit	2812
(Multiple sheets used when necessary)	Examiner	Unknown
SHEET 3 OF 3	Attorney Docket No.	ASMEX.446A

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ¹
	47	TSUTOMU TEZUKA, "Strained Si- and SiGe-MOSFETs on SiGe-on-insulator (SGOI) substrates", 2002 Japan Epitaxial Technology Symposium, "Advanced Substrate Engineering and Device Technology", February 27, 2002	·
	48	TEZUKA ET AL., "Fabrication of strained Si on an ultrathin SiGe-on-insulator virtual substrate with a high-Ge fraction", Applied Physics Letters, Vol 79, No. 12, September 17, 2001, pp. 1798-1800	
	49	TEZUKA ET AL., "Fabrication of a strained is on sub-10-nm-thick SiGe-on-insulator virtual substrate", Materials Science and Engineering B89 (2002), pp. 360-363	
	50	TEZUKA ET AL., "Novel fully-depleted SiGe-on-insulator pMOSFETs with high-mobility SiGe surface channels", International Electron Devices Meeting Technical Digest, pp. 946-948, 2001	
	51	CANNON, D. ET AL., <u>"Tensile strained epitaxial Ge films on Si(100) substrates with potential application in L-band telecommunications"</u> , Applied Physics Letters, Volume 84, Number 6, February 9, 2004, pp. 906-908.	
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	56	ISHIKAWA, Y. ET AL., "Strain-induced band gap shrinkage in Ge grown on Si substrate", Applied Physics Letters, Volume 82, Number 12, March 31, 2003, pp. 2044-2046.	
	57	LEE ET AL., "Growth of strained Si and strained Ge heterostructures on relaxed Si _{1-x} G _{ex} by ultrahigh vacuum chemical vapor deposition", J. Vac. Sci. Technol. B 22(1) (Jan/Feb 2004).	
	58	LI, Q, ET AL., "Selective growth of Ge on Si(100) through vias of SiO ₂ nanotemplate using solid source molecular beam epitaxy", Applied Physics Letters, Volume 83, Number 24, December 15, 2003, pp. 5032-5034.	
	59	LIU, J. ET AL., "Silicidation –induced band gap shrinkage in Ge epitaxial films on Si", Applied Physics Letters, Volume 84, Number 5, February 2, 2004, pp. 660-662.	
	60	MASINI, G. ET AL.; "High-Performance p-i-n Ge on Si Photodetectors for the Near Infrared: From Model to Demonstration", IEEE Transactions of Electron Devices, Vol. 48, No. 6, June 2001, pp. 1092-1096.	
	• 61	SCHOLLHORN ET AL., "Coalescence of germanium islands on silicon", Thin Solid Films," Vol. 336 (1988), pp. 109-111.	-

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Examiner Signature

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